

# PROJECT 10073 RECORD CARD

1. DATE 1 Sep 63	2. LOCATION 43.20N 173.50W(pacific)		12. CONCLUSIONS <input type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon  <input type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft  <input type="checkbox"/> Was Astronomical <input type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical <input checked="" type="checkbox"/> Other <u>Satellite ECHO I</u> <input type="checkbox"/> Insufficient Data for Evaluation <input type="checkbox"/> Unknown
3. DATE-TIME GROUP Local _____ GMT 01/1515Z	4. TYPE OF OBSERVATION <input type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar <input checked="" type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar		
5. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. SOURCE military		
7. LENGTH OF OBSERVATION 15 min	8. NUMBER OF OBJECTS one	9. COURSE East	
10. BRIEF SUMMARY OF SIGHTING UFO sighted from 1515Z to 1530Z. Unknown altitude, Eastbound at high rate of speed.		11. COMMENTS at 1427 ECHO crossed equator at 290.0 At 1458 it started South at 208 deg. at 1515 ECHO was heading SE at 155 deg W and 30 deg N. This places the Satellite in the general area and it would be visible. Case evaluated as ECHO I.	



NNNN

DEPARTMENT OF THE AIR FORCE  
STAFF MESSAGE BRANCH  
UNCLASSIFIED MESSAGE

AF IN : 42268 (1 Sep 63) L/crp

**INCOMING**

Pg 1 of 2

INFO : NIN-9, XOP-1, XOPX-4, SAF-OS-3, ARMY-2, NAVY-2, CMC-8, JCS-35,  
OSD-15, NSA-7, DIA-25, DIA-CIIC-2 (119)

SMB C044

ZCHQA574ZCECD078

OO RUEAHQ

DE RUHPF B048 01/1616Z

ZNR

O 011615Z

FM COMBARPAC

ITG RUKACR/COMALSEAFRON

RUKDAG/COMALAIRCOM

RUHLKM/CINCPACAF

ZEN/CINCNORAD

INFO RUECW/CNO

RUEAHQ/COFS USAF

RUHPA/CINCPAC

RUHPB/CINCPACFLT

RUHAFS/CINCUSARPAC

RUHLKMP, PACAFBASECOM HRKAM

RUECW/SECNAV

RUHPHH/COMHAWSEAFRON

1427

~~48~~

30°N SE →

290.03

~~- 135~~

155°W

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DEPARTMENT OF THE AIR FORCE  
STAFF MESSAGE BRANCH  
UNCLASSIFIED MESSAGE

AF IN : 42268 (1 Sep 63) **I N C O M I N G**

Pg 2 of 2

RUAUAAH/HADD KUNIA

BT

UNCLAS

A. JANAP 146D

1. CIRVIS REPORT

2. NAVY 143200

3. UFO. SIGHTING FROM 1515 TO 1530Z

4. 43-20N 173-50W

5. 011515Z

6. UNKNOWN

7. EASTBOUND

8. HIGH RATE

BT

NOTE: Adv copy to KOPX, NIN and DIA-CIIC.  
Xmitted to CIA



## SMITHSONIAN ASTRONOMICAL OBSERVATORY, CAMBRIDGE, MASSACHUSETTS

AUGUST 28, 1963

## SATELLITE 1960 TOTA 1, SCMO I

These predictions are based on orbital elements revised on August 26, 1963  
 T = August 27.0, times are in days, U.T.  
 Argument of perigee =  $212^{\circ}53' + 3^{\circ}77'' (t-T_0)$   
 Right ascension of ascending node =  $205^{\circ}37'5'' - 3^{\circ}31'' (t-T_0)$

Inclination =  $47^{\circ}27'42''$   
 Eccentricity =  $0.06495 + 1.55 \times 10^{-4} (t-T_0)$   
 Semi-major axis =  $7.831413$  megameters  
 Mean anomaly (Adv.) =  $0.08851 + 12.525782 (t-T_0) + 3.208 \times 10^{-4} (t-T_0)^2$

SATELLITE 1960 TOTA 1 FOR OTHER LATITUDES											SATELLITE 1960 TOTA 1 FOR OTHER LATITUDES												
EQUATOR S-N		SOUTH-NORTH		NORTH-SOUTH		S-N		SOUTH-NORTH		NORTH-SOUTH		EQUATOR S-N		SOUTH-NORTH		NORTH-SOUTH		S-N		SOUTH-NORTH		NORTH-SOUTH	
TIME UT	LONG. W	LAT.	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	TIME UT	LONG. W	LAT.	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	
AUGUST 31, 1963											SEPTEMBER 4, 1963												
0 11.1	89.00	47.5	31.7	-81.95	1183	90.0°	31.7	-81.99	1182	90.0°		1 47.4	110.58	47.5	31.3	-82.07	1208	90.0°	31.3	-82.17	1208	90.0°	
1 47.4	89.05	45.0	29.9	-80.01	1205	72.1°	37.5	-103.96	1134	107.8°		2 42.7	139.40	45.0	29.4	-80.13	1206	72.1°	37.2	-104.04	1182	107.9°	
2 42.7	127.40	40.0	21.2	-44.97	1209	60.5°	42.0	-119.03	1081	119.4°		3 37.0	168.65	40.0	20.7	-45.09	1183	60.5°	41.8	-119.10	1144	119.4°	
3 37.0	150.16	35.0	17.7	-35.48	1191	53.8°	45.3	-128.57	1036	126.1°		4 31.8	197.70	35.0	17.1	-35.59	1156	53.8°	45.1	-128.61	1106	126.1°	
4 31.8	185.21	30.0	14.8	-28.25	1172	49.2°	48.1	-135.85	993	130.7°		5 26.4	226.74	30.0	14.4	-28.35	1127	49.2°	48.0	-135.87	1068	130.7°	
5 26.4	214.26	20.0	9.5	-17.11	1124	43.5°	53.0	-147.08	915	136.4°		6 21.5	255.79	20.0	9.2	-17.18	1061	43.5°	53.1	-147.07	915	136.4°	
6 21.5	243.31	0.0	0.0	0.0	1000	39.8°	61.6	-164.41	774	140.1°		7 16.9	284.84	0.0	0.0	0.0	920	39.8°	62.0	-164.41	774	140.1°	
7 16.9	272.37	-20.0	-9.9	17.24	859	43.7°	-45.2	149.07	668	130.7°		8 11.1	313.89	-20.0	-9.7	17.32	781	43.7°	-44.6	149.07	657	130.7°	
8 11.1	301.42	-30.0	-13.6	28.54	767	49.4°	-40.8	137.68	632	130.5°		9 5.9	342.93	-30.0	-13.2	28.65	717	49.4°	-40.2	137.67	637	130.5°	
9 5.9	330.47	-45.0	-18.1	35.89	750	54.0°	-38.5	130.30	619	126.0°		10 0.7	371.98	-45.0	-13.8	36.02	687	54.0°	-37.8	130.30	634	126.0°	
10 0.7	359.52	-60.0	-19.0	45.53	742	50.7°	-35.7	120.67	611	119.3°		11 55.3	401.03	-60.0	-18.4	45.88	658	50.7°	-35.0	120.67	625	119.3°	
11 55.3	388.57	-45.0	-22.8	60.79	670	72.2°	-32.1	105.33	617	107.8°		12 50.3	430.01	-45.0	-22.1	60.96	624	72.2°	-31.5	105.32	610	107.8°	
12 50.3	417.02	-47.5	-27.4	93.04	631	90.0°	-27.5	81.08	631	90.0°				-47.5	-26.7	63.27	609	90.0°	-26.7	63.26	609	90.0°	
SEPTEMBER 1, 1963											SEPTEMBER 5, 1963												
1 45.0	86.08	47.5	31.6	-81.98	1191	90.0°	31.6	-82.02	1191	90.0°		0 45.2	99.11	47.5	31.1	-82.10	1211	90.0°	31.2	-82.14	1211	90.0°	
2 40.0	115.73	45.0	29.8	-80.01	1205	72.1°	37.5	-103.97	1148	107.8°		1 40.0	128.16	45.0	29.2	-80.16	1202	72.1°	37.0	-104.06	1191	107.9°	
3 34.8	144.78	40.0	21.1	-44.97	1209	60.5°	42.0	-119.04	1098	119.4°		2 34.8	157.21	40.0	20.6	-45.12	1175	60.5°	41.7	-119.13	1156	119.4°	
4 29.6	173.83	35.0	17.6	-35.50	1184	53.8°	45.3	-128.57	1054	126.1°		3 29.6	186.26	35.0	17.2	-35.62	1145	53.8°	45.0	-128.64	1121	126.1°	
5 24.3	202.86	30.0	14.7	-28.27	1167	49.2°	48.1	-135.85	1013	130.7°		4 24.3	215.30	30.0	14.3	-28.37	1113	49.2°	47.9	-135.89	1085	130.7°	
6 19.0	231.93	20.0	9.4	-17.13	1109	43.5°	53.1	-147.07	914	136.4°		5 19.2	244.35	20.0	9.1	-17.20	1084	43.5°	53.0	-147.07	1011	136.4°	
7 14.0	260.98	0.0	0.0	0.0	993	39.8°	61.7	-164.38	792	140.1°		6 14.0	273.39	0.0	0.0	0.0	901	39.8°	62.0	-164.31	805	140.1°	
8 8.8	289.03	-20.0	-9.9	17.25	859	43.7°	-45.0	149.11	679	130.7°		7 8.8	302.44	-20.0	-9.6	17.33	764	43.7°	-44.5	149.14	713	130.7°	
9 3.6	318.08	-30.0	-13.7	28.57	767	49.4°	-40.7	137.73	657	130.5°		8 3.6	331.49	-30.0	-13.1	28.66	702	49.4°	-40.0	137.69	678	130.5°	
10 0.0	347.13	-45.0	-18.0	35.90	750	54.0°	-38.3	130.35	674	126.0°		9 0.0	360.50	-45.0	-13.5	36.05	674	54.0°	-37.6	130.51	653	126.0°	
11 54.3	376.19	-60.0	-19.8	45.57	657	50.7°	-35.5	120.67	613	119.3°		10 54.3	393.51	-60.0	-18.1	45.71	647	50.7°	-34.9	120.64	631	119.3°	
12 49.1	405.24	-45.0	-22.6	60.84	658	72.2°	-31.9	105.36	610	107.8°		11 49.1	420.52	-45.0	-22.0	60.99	621	72.2°	-31.2	105.56	612	107.8°	
13 43.9	434.29	-47.5	-27.2	93.05	634	90.0°	-27.3	81.13	624	90.0°		12 43.9	447.57	-47.5	-26.4	93.25	606	90.0°	-26.4	81.30	606	90.0°	
SEPTEMBER 6, 1963											SEPTEMBER 9, 1963												
0 45.0	86.08	47.5	31.6	-81.98	1191	90.0°	31.6	-82.02	1198	90.0°		0 45.1	100.08	47.5	31.0	-82.14	1217	90.0°	31.0	-82.18	1217	90.0°	
1 40.0	115.73	45.0	29.8	-80.01	1205	72.1°	37.5	-103.99	1160	107.8°		1 40.1	129.07	45.0	29.1	-80.20	1197	72.1°	30.9	-104.17	1199	107.9°	
2 34.8	144.78	40.0	21.1	-44.97	1209	60.5°	41.9	-119.07	1113	119.4°		2 40.1	140.00	40.0	20.0	-45.24	1165	60.5°	41.5	-119.24	1168	119.4°	
3 29.6	173.83	35.0	17.6	-35.50	1184	53.8°	45.3	-128.58	1071	126.1°		3 34.8	150.93	35.0	16.9	-45.26	1132	53.8°	41.2	-119.31	1136	126.1°	
4 24.3	202.86	30.0	14.7	-28.27	1167	49.2°	48.1	-135.85	1031	130.7°		4 29.6	161.86	30.0	14.2	-28.38	1097	49.2°	47.6	-135.96	1107	130.7°	
5 19.0	231.93	20.0	9.4	-17.13	1109	43.5°	53.1	-147.08	952	136.4°		5 24.3	172.79	20.0	14.0	-28.40	1064	49.2°	47.3	-136.01	1071	130.7°	
6 14.0	260.98	0.0	0.0	0.0	993	39.8°	61.7	-164.40	807	140.1°		6 19.0	183.72	20.0	9.3	-17.22	1035	43.5°	53.0	-147.09	1041	136.4°	
7 8.8	289.03	-20.0	-9.9	17.25	859	43.7°	-45.0	149.15	691	130.7°		7 14.0	194.65	0.0	0.0	0.0	902	39.8°	62.0	-164.34	806	140.1°	
8 3.6	318.08	-30.0	-13.7	28.57	767	49.4°	-40.7	137.77	667	130.5°		8 8.8	205.58	-20.0	-9.7	17.34	764	43.7°	-44.5	149.17	719	130.7°	
9 0.0	347.13	-45.0	-18.0	35.90	750	54.0°	-38.3	130.39	679	126.0°		9 3.6	216.51	-30.0	-13.1	28.67	702	49.4°	-40.0	137.70	679	130.5°	
10 54.3	376.19	-60.0	-19.8	45.57	657	50.7°	-35.5	120.72	615	119.3°		10 0.0	227.44	-45.0	-13.5	36.09	674	54.0°	-37.6	130.53	653	126.0°	
11 49.1	405.24	-45.0	-22.6	60.84	658	72.2°	-31.9	105.43	612	107.8°		11 54.3	238.37	-60.0	-18.1	45.74	647	50.7°	-34.9	120.66	631	119.3°	
12 43.9	434.29	-47.5	-27.2	93.06	634	90.0°	-27.3	81.17	614	90.0°		12 49.1	249.30	-45.0	-22.1	60.99	621	72.2°	-31.2	105.47	612	107.8°	
SEPTEMBER 7, 1963											SEPTEMBER 10, 1963												
0 45.0	86.08	47.5	31.6	-81.98	1191	90.0°	31.6	-82.02	1204	90.0°		0 45.1	101.05	47.5	30.9	-82.16	1223	90.0°	30.9	-82.20	1223	90.0°	
1 40.0	115.73	45.0	29.8	-80.01	1205	72.1°	37.5	-103.99	1172	107.8°		1 40.1	111.98	45.0	29.0	-80.22	1209	72.1°	30.7	-104.22	1205	107.9°	
2 34.8	144.78	40.0	21.1	-44.97	1209	60.5°	41.9	-119.08	1125	119.4°		2 40.1	122.91	40.0	20.0	-45.28	1177	60.5°	41.3	-119.29	1179	119.4°	
3 29.6	173.83	35.0	17.6	-35.50	1184	53.8°	45.3	-128.59	1088	126.1°		3 34.8	133.84	35.0	16.9	-45.30	1144	53.8°	41.0	-119.36	1149	126.1°	
4 24.3	202.86	30.0	14.7	-28.27	1167	49.2°	48.1	-135.85	1045	130.7°		4 29.6	144.77	30.0	14.2	-28.42	1111	49.2°	47.3	-136.02	1119	130.7°	
5 19.0	231.93	20.0	9.4	-17.13	1109	43.5°	53.1	-147.09	989	136.4°		5 24.3	155.70	20.0	14.0	-28.44	1078	49.2°	47.0	-136.07	1083	130.7°	
6 14.0	260.98	0.0	0.0	0.0	993	39.8°	61.7	-164.43	807	140.1°		6 19.0	166.63	20.0	9.3	-17.24	1047	43.5°	53.0	-147.1			